

d. Remarks

1) At page 2, the Office Action rejects claims 1 – 2, 4 – 5, 7, 11 – 13, and 15 – 17 as being anticipated by U.S. Patent 6,518,905 to Siferd (Herein, referred to as Siferd.).

A proper anticipation rejection requires that the cited prior art include each feature of the rejected claim.

The Office Action does not cite a teaching from Siferd for each feature of pending claim 1. In particular, while pending claim 1 recites:

“a quantizer configured to produce a series of digital signals ... [that] has a data-carrying frequency spectrum that is a mirror image of a data-carrying frequency spectrum of the analog input signal”,

the Office Action does not cite Siferd as teaching this feature. That is, the Office Action does not cite any portion of Siferd as teaching a quantizer configured to produce a series of digital signals with a ... spectrum that is a mirror image of the ... spectrum of the analog input signal. Due to the absence of a prior art citation for the above-recited feature, the anticipation rejection of claim 1 is improper and should be withdrawn.

Also, the Office Action does not cite a teaching from Siferd for each feature of pending claim 11. In particular, while pending claim 11 recites:

“transmitting an analog input signal ... to convert the analog input signal into a series ... wherein the series ... has a data-carrying frequency spectrum that is a mirror image of a data-carrying frequency spectrum of the analog input signal,”

the Office Action does not cite Siferd as teaching this feature of pending claim 11. That is, the Office Action does not cite any portion of Siferd as teaching producing a series of digital signals with a ... spectrum that is a mirror image of the ... spectrum of the analog input signal. Due to the absence of a prior art citation for the above-recited feature, the anticipation rejection of claim 11 is improper and should be withdrawn.

Dependent claims 2, 4 – 5, and 7 are novel, at least, due to their dependence on novel base claim 1.

Dependent claims 12 –13 and 15 – 17 are novel, at least, due to their dependence on novel base claim 11.

2) At page 3, the Office Action rejects claims 3, 6, 8 – 10, 14, and 18 as obvious over Siferd and “Design and Implementation of a Tunable 40 MHz—70MHz Gm-C Bandpass $\Delta\Sigma$ Modulator, by O. Shoaie et al, IEEE Transactions on Circuits and Systems -II: Analog and Digital Signal Processing, Vol. 44, No. 7 (1997) pp. 521-530.

Claims 3, 6, and 8 – 10 are non-obvious, at least, by their dependence on non-obvious base claim 1.

Claims 14 and 18 are non-obvious, at least, by their dependence on non-obvious base claim 11.

For the above reasons, Applicants respectfully requests allowance of pending claims 1 – 18.

NO FEE DUE.

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit **Lucent Technologies Deposit Account No. 12-2325** to correct the error.

Respectfully,

A handwritten signature in black ink, reading "John F. McCabe", is written over a horizontal line.

John F. McCabe, Reg. No. 42,854
Telephone: 908-582-6866

Date: June 23, 2005
Lucent Technologies, Inc.
Docket Administrator
101 Crawfords Corner Road (Rm. 3J-219)
Holmdel, New Jersey 07733